

DRAFT ENVIRONMENTAL ASSESSMENT

**COMMERCIAL RECREATION LICENSE
AND MARINA EXPANSION
FOR BLUE SPRINGS MARINA
Roane County, Tennessee**

TENNESSEE VALLEY AUTHORITY

OCTOBER 2002

Direct Comments to:

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The Proposed Decision

Blue Springs Marina, at Tennessee River Mile 547.5L on Watts Bar Reservoir, is proposing the expansion of its existing facilities with the addition of 104 boat slips and a courtesy dock; the modification of six existing boat slips; the extension of a retaining wall and parking lot; and the construction of access roads. The Tennessee Valley Authority (TVA) must decide whether to approve the project under Section 26a of the TVA Act and issue a license to operate a commercial recreation facility on TVA property.

Background

On December 15, 1999, Mr. Lawrence J. Steidle of Blue Springs Marina, Roane County, Tennessee, submitted a joint TVA and United States Army Corps of Engineers (USACE) application for approval of an expansion of current facilities with the enlargement of six existing boat slips; the extension of a retaining wall; the construction of up to 104 additional boat slips, a courtesy dock, 89 vehicle parking places, and access roads to an existing Tennessee Wildlife Resources Agency (TWRA) boat access ramp (Attachment 1).

Blue Springs Marina is located at mile 1.0R of the Cane Creek estuary on Watts Bar Reservoir and currently operates under a commercial recreation license that authorizes boat slips, a store and restaurant, fueling facility, boat storage, and boat repair service. The marina occupies a footprint of 1.8 acres of TVA land, below the 750-foot contour, and fronts former TVA land (TVA Tract Number XWBR-253), which is owned by the marina.

The proposed new boat slips would all be covered and expand the harbor limits 209 feet to the south of the existing marina, fronting an existing TWRA public boat ramp. The TWRA ramp is located on TVA fee property (Tract Number XWBR-20) under a recreation easement. Blue Springs Marina proposes to lease the 209 feet of TVA shoreline below the 750-foot contour fronting Tract XWBR-20. Blue Springs Marina would then have the necessary landrights to request a harbor expansion (18 Code of Federal Regulation, Part 1304.202, Designation of Harbor Areas at Commercial Boat Docks). If the proposal were granted, Blue Springs would also make improvements to the TWRA boat ramp. TWRA said in a March 3, 2000, letter that it has no objection to the proposal (Attachment 2) provided the expansion did not interfere with the use of the ramp.

Prior to approval by TVA, approval would also be needed from the Tennessee Department of Environment and Conservation under Section 401 of the Clean Water Act of 1977, requiring certification that applicable water quality standards will not be violated. Approval for the project would also be needed from USACE under Section 10 of the Rivers and Harbors

Act of 1899, which prohibits the alteration or obstruction of any navigable waters of the United States unless authorized by USACE.

In accordance with the National Environmental Policy Act (NEPA), Council on Environmental Quality regulations, and TVA implementing procedures, TVA has assessed the potential impacts of the project on the human environment. Additional details of the proposed federal action can be found in the attached TVA/USACE joint application (Attachment 1) and the Environmental Decision Record (EDR) (Attachment 3). Many actions of this type would normally qualify for categorical exclusion under Section 5.2.26 of TVA's NEPA procedures, "Approvals under Section 26a of the TVA Act of Minor Structures, Boat Docks, and Shoreline Facilities." However, because of issues raised by the public (including noise, visual resources, and property values) in response to a public notice, TVA has elected to prepare this Environmental Assessment (EA) to consider these issues.

Regulatory Authorities and Requirements

Section 26a of the TVA Act of 1933, as amended, requires approval by TVA for construction of facilities in, along, or across the Tennessee River and its tributaries.

Public Involvement

TVA issued a public notice on August 28, 2000 (Attachment 4), which appeared in local papers and the TVA Web site. It also was posted at the proposed site. TVA received 52 letters or e-mails and several phone calls from interested individuals about the proposed project. Most of the people commenting either used the boat dock or had residences in the vicinity. About a third of the comments were in favor of the project and made positive statements. Among these were comments that the marina is well kept and professionally operated, that wildlife appears plentiful in the area (osprey on a nearby silo), and that repair of the TWRA ramp would greatly improve the area. About two-thirds of the comments were not in favor of the enlargement of the marina. Many of these individuals had residences in the vicinity. Their concerns were the potential for more erosion of the shoreline, safety at the narrow channel to the Cane Creek estuary, increased boat traffic in the estuary, enlargement of the no-wake zone, too many boat slips in a small area, impacts to the TWRA ramp use, impacts to a small cemetery on Tract XWBR-20, impacts to wildlife (osprey nest on nearby silo), increase in noise from boats, increase in water pollution, increase in sewage in water, impacts to aesthetics and visual enjoyment, impacts to property values, and increased safety concerns. Several comments proposed mitigation by mandatory use of a pump-out station and an enlarged no-wake zone. TVA also received copies of four petitions about the proposal. One petition with 11 signatures was in opposition to the proposal citing many of the previously described issues. The remaining three petitions were in support of the planned growth of the marina: the one labeled for landowners had 72 signatures; the one for boat owners had 84 signatures; and the one for fishermen had 45 signatures.

Scoping

The public response to the proposal focused on the potential socioeconomic effects to private property and potential effects to natural resources in the Cane Creek estuary. The issues and information identified during scoping were used by TVA to identify environmental impacts associated with the project. Because of the nature of the project, TVA has

determined there would be no waste stream generation or alteration involving air, hazardous materials, solid wastes, or special materials. Likewise, TVA has determined there would be no potential effect to groundwater, stream modification, floodplains, wetlands, prime farmlands, significant managed areas, historic structures and sites, archaeological resources, or protected and sensitive plant or animal species.

Cultural Resources

There would be no impacts to historic sites, archaeological resources, or to a small cemetery on Tract XWBR-20. The only potentially historic structure is the half submerged concrete silo in the harbor area. To avoid impacts to the silo, the marina boat slip extension would need to be engineered to avoid impacting or touching the silo present in "I" dock and no construction materials would be placed in contact with the silo.

Recreational Impacts

Recreation boating traffic would increase in the area. The expansion of the proposed dock facilities and harbor limits at Blue Springs Marina could have some minor impact to recreation traffic from the southern end of the Cane Creek cove.

The channel entrance to the Cane Creek estuary (about 400 feet wide at pool elevation 735) is narrow, which has precipitated some concerns about boating safety. The state of Tennessee, through the TWRA, has the primary responsibility for approving and enforcing no-wake zones and could be requested by the marina owner and adjoining neighborhoods along the shoreline to position "Slow, Congested Area" buoys along the channel. However, the increase in boating traffic from the proposed expansion is estimated to be about 17 to 18 boats on the busiest weekends of the summer and about 5 to 6 boats or less on other summer days. Therefore, this proposal would have insignificant impacts to recreation traffic, commercial navigation, and safety issues.

Visual Resources

The existing TWRA ramp is not discernible for infrequent users and is difficult to access. The expansion of harbor limits could potentially be beneficial for area residents as well as users of the recreational facilities. There would be a positive visual benefit in the following areas: adding additional sea wall (reduction of shoreline erosion), the repair of the TWRA launch ramp, and addition of a public courtesy dock.

The addition of new boat slips and parking expansion could have cumulative impacts on the foreground and middle ground views of area residents and users of the facilities. Some shoreline views may be obscured from residents living along the opposite shoreline, and increased traffic would affect the natural scenic beauty of the lake. However, many of the homes along the opposite shoreline have buffers that obscure views to the marina, thereby mitigating many of the effects of the expansion. Additionally, this type of expansion is common and is visually compatible with the existing development.

The construction of new parking would be necessary for the additional boat slips. The proposed additional parking would be located in front of the existing marina buildings. Residents along the adjacent shoreline would not perceive a visual change as a result of this construction.

Water Quality Impacts

The proposed developments would require construction activity to take place along the shoreline. During this construction phase, turbidity levels would likely be elevated locally. The proposal indicates that shoreline stabilization would be installed along a short segment of the shoreline to mitigate the impacts of future watercraft traffic. Following construction activities, turbidity levels and sedimentation into the reservoir originating from the marina site should return to preconstruction levels due to stabilization of the shoreline segment. The temporary, localized increases in turbidity would not result in significant adverse impacts to water quality in the area during marina construction or operation. Water-related impacts resulting from marina expansion would be insignificant with implementation of Best Management Practices.

Treatment and handling of wastewater and sewage originating from watercraft would minimize adverse impacts resulting from sewage and other liquid wastes. Wastewater treatment and handling originating from both onshore facilities and from watercraft should comply with all TVA, state, and local regulations. There would be no wastewater discharge from boats leasing slips at the marina. All boats with toilets would be equipped with holding tanks and be required to use a pump-out facility. The marina would operate and maintain a wastewater pump-out facility. These requirements would be included in all new slip lease agreements and added to existing agreements as they expire and are renewed.

Sensitive Habitats

The osprey has been recently delisted by the state of Tennessee as a threatened species. Nevertheless as a precaution, the silo nesting site would be protected by allowing no boat mooring in all slips immediately adjacent to the silo with the osprey nest.

Therefore, impacts involving wastewater, transportation, recreation, surface water, terrestrial and aquatic ecology, sensitive habitats, and visual resources would be minor and/or temporary provided conditions were implemented to minimize the impact to the environment.

Noise impacts and property values are substantive issues of public concern that could be affected by construction and operation of the marina, and further study of the effects of the proposal on these resources are analyzed and disclosed in the EA.

Alternatives

Action Alternative

The proposed Action Alternative is to issue a Section 26a approval and a license to Blue Springs Marina to allow construction and operation of the proposed expansion. Maps, plans, and a description of the project are included in the attached EDR (Attachment 3).

No Action Alternative

Under the No Action Alternative, TVA would not issue a Section 26a permit or license. Therefore, the marina expansion would not occur and the TWRA ramp would not be repaired and improved by Blue Springs Marina.

Comparison of Alternatives

If the proposed Action Alternative were completed, the construction and operation of the marina expansion, courtesy dock, and other improvements would occur, and there would be a minor increase in noise from boats with minor impacts to water quality and aquatic and terrestrial ecology. Blue Springs Marina would be able to increase its ability to serve the boating public on Watts Bar Reservoir. If the No Action Alternative were adopted, the marina expansion, courtesy dock, and other improvements would not be constructed. There would be no additional impacts to the environment; potential boat slip users would have to go elsewhere; and Blue Springs Marina would maintain existing levels of service to the boating public.

Summary of Impacts Under Proposed Action

- There would be minor and temporary siltation and runoff increases in the construction area.
- There would be other minor and minimized impacts to the environment as noted in the EDR and EA.
- Blue Springs Marina would be able to increase its boat slip capability to better match increasing commercial demand.

Summary of Impacts Under No Action

- There would be no new environmental impacts from Blue Springs Marina.

Cumulative Impacts

Resources potentially cumulatively affected by the expansion of the marina are water quality, recreation, and noise. Water quality would continue to be affected by general population and lakefront subdivision growth in the area. In order to avoid contributing to water quality degradation in the area, TVA would require use of erosion control measures and prohibit sewage discharge from boats at the marina. If current population and migration trends continue, the demand for boating opportunities would likely increase. There are at least three other comparable marinas within 5 river miles of Blue Springs Marina which contribute boat traffic to this general area of Watts Bar Reservoir. However, this area of the reservoir is wide, and the small increase in boat slips would likely not affect the recreational user experience. The proposed action would increase the number of boats docked and operating in the Cane Creek estuary along with an increase in docks, vehicle parking, and the infrastructure. There would be minor increases in noise due to an increase in vehicle and boat traffic going to and from the marina. Although it would have a somewhat greater impact than the No Action Alternative, the Action Alternative would result in a minimal impact on the environment. Therefore, TVA has determined that cumulative impacts of this action would be insignificant.

Affected Environment

Site Description

The area topography has northeast to southeast ridges and valleys, bisected by streams, which is typical in east Tennessee. Generally, the valleys and lower ridge slopes have been cleared in the past for agricultural use. The broader valleys support the more productive

farms, while many of the smaller or former subsistence farms, especially around Watts Bar Reservoir, are commonly reverting to forest. The ridges are generally forested with hardwoods and pine, although most areas have been repeatedly harvested. The existing marina site is on the Cane Creek embayment of eastern Watts Bar Reservoir in Roane County, Tennessee. Cane Creek embayment has three major coves which join at a deep but fairly narrow channel to bisect a ridge and connect to the main reservoir. The marina is situated between River Road and the east side of the northernmost cove on both public and private property. The docks, which extend out into the cove, ramps, and the shoreline facilities, are on public property, while the rest of the marina infrastructure (store, boat storage, repair shops, and parking) is on private property. Adjoining to the south is a TWRA public boat ramp and a small cemetery, both on TVA land. To the north at the head of the cove are residences along the shoreline with a small, back-lying community. TVA land is across the marina cove which encompasses several peninsulas and high water islands. Except for the heads of the coves, which are generally low forested areas, there are residences in various densities on the shoreline around most of the rest of the embayment.

Property Values

The site for the proposed marina expansion is on the south side of the existing marina. The marina currently occupies a large portion of a small cove on the northern side of Cane Creek embayment. Landward the proposed site is bordered by the marina complex, parking lots, a TWRA public boat ramp, and adjacent residential property to the north. Other residential property is situated across the small cove to the northwest and across Cane Creek embayment to the west and south. The proposed site is in the view shed of residences westward across the creek from Highway 58 to the east. Due west across the small cove is a small island-like 7.9-acre parcel of TVA land (TVA Tract Number XWBR-68PT), which is allocated for informal recreation and visual management. Southwest Point historic and recreation area is also in the vicinity across the river but not in the direct view shed. The topography of this shoreline land is gently rolling to low lying with tree cover composed of a mix of hardwood and evergreens. Downstream toward the main Watts Bar Lake, the embayment narrows to channel between two forested hills.

Noise

Noise impacts can result from the operation of small, power-driven boats. Blue Springs Marina moors a large number of sail and pontoon boats. About 100 of the current 265 slips are for sailboats, and approximately half of the requested additional slips are for sailboat moorage. The remaining additional slips, about 52, are available for fishing boats, pontoon boats, runabouts, and other powerboats.

Environmental Consequences

Property Values

Residential property values can be affected by many diverse factors or values, such as supply and demand, view, water frontage, accessibility, availability of shopping and services, economic conditions, and a vast number of other factors. It is often difficult to isolate the effect of any single variable. In addition, the relative importance of each of these factors or values may be unique to each, individual property and can reflect the personal values of the purchaser or seller.

Although estimation of property values often can be speculative, it is commonly acceptable to establish relative value trends through the principle of substitution. For example, a

residential property in proximity of lakes and streams with recreation potential often is in greater demand than property with identical attributes elsewhere, and being in greater demand is likely to have a greater value.

In general, the proposed marina expansion would not be out of character with the existing property use and would not greatly affect surrounding residential properties. Those properties directly adjacent to the existing site are already affected by the existing marina and the proposed expansion would occur on the opposite side of the marina out of their view shed. Other residential properties not adjacent or across the cove are also already affected by the marina and would be affected even less by the proposed expansion as the distance from them increases.

Under the No Action Alternative, the marina expansion would not be constructed and any increase or decrease to surrounding property values affected by the marina would not occur.

Under the Action Alternative, the surrounding residential property values would not likely change significantly as impacts have already been established by the presence of the existing marina.

Noise

Possible environmental noise effects from the proposed requests come from the increase in powerboat activities. Each of the proposed actions in these requests has different potential for affecting the environmental noise in the area. The repairs to the launch ramp, retaining wall, and access to the ramp have no potential impact because they do not increase usage. The addition of the courtesy dock, expansion of the harbor limits, and enlargement of some existing boat slips have minimal potential effects from transient boaters. The construction of approximately 104 more boat slips has the potential for some level of environmental noise effects.

A survey of boat usage at large Tennessee River marinas (TVA, 2000) showed that on the busiest summer weekends, about one-third of the boats are used, and about 10 percent or less are used on other summer days. With the application of these usage rates to the additional, requested powerboat slips at Blue Spring, the increase in powerboat use would be about 17 to 18 boats on the busiest weekends of the summer and about 5 to 6 boats or less on other summer days. Some of the additional boats originating at Blue Springs would leave the immediate area around the marina for fishing locations or other reasons.

The area around the marina is not a wildlife sanctuary or pristine wilderness area where the lack of man-made noise is considered an asset. Currently, it is used by some marina, ramp-launched, and local residents' boats for powerboat activities, such as water skiing and tubing. Neighboring residents around the marina are accustomed to hearing the sounds of powerboats, and they produce some of the present powerboat noise themselves. The increase in use of boats would cause only a marginal increase in noise levels.

Based on these reasons, the potential environmental noise effects caused by approving the requested actions are insignificant.

Measures to Mitigate Adverse Impacts

No significant adverse effects are expected to occur from the project provided the following measures are implemented during construction and operation. The Section 26a approval for this action would be conditioned as follows:

1. All disturbed areas will be stabilized within 30 days of completion of the work authorized. All land-disturbing activities shall be conducted in accordance with Best Management Practices as defined by Section 208 of the Clean Water Act to control erosion and sedimentation to prevent adverse water quality and related aquatic impacts. Such practices shall be consistent with sound engineering and construction principles; applicable federal, state, and local statutes, regulations, or ordinances; and proven techniques for controlling erosion and sedimentation, including the following:
 - A. The removal of vegetation will be minimized, particularly any woody vegetation providing shoreline/streambank stabilization.
 - B. Cofferdams and/or silt control structures between construction areas and surface waters will be installed prior to any soil-disturbing construction activity, and clarification of all water that accumulates behind these devices will be done to meet state water quality criteria at the stream mile where activity occurs before it is returned to the unaffected portion of the stream. Cofferdams must be used wherever construction activity is at or below water elevation.
 - C. Equipment will be kept out of the reservoir or stream and off reservoir or stream banks to the extent practicable (i.e., performing work "in the dry").
 - D. Contact of wet concrete will be avoided with the stream or reservoir, and disposing of concrete washings or other substances or materials in those waters will be avoided.
 - E. Erosion control structures will be used around any material stockpile areas.
 - F. Clean/shaken riprap or shot rock will be applied (where needed at water/bank interface) over a water permeable/soil impermeable fabric or geotextile and in such a manner as to avoid stream sedimentation or disturbance, or that any rock used for cover and stabilization shall be large enough to prevent washout and provide good aquatic habitat.
 - G. Remove, redistribute, and stabilize (with vegetation) all sediment which accumulates behind cofferdams or silt control structures.
2. There will be no wastewater discharge from boats leasing slips at the marina. All boats with toilets will be equipped with holding tanks and be required to use a pump-out facility. The marina will operate and maintain a wastewater pump-out facility. These requirements will be included in all new slip lease agreements and added to existing agreements as they expire and are renewed.
3. Maintenance equipment will be kept off of the shoreline to the extent practicable, and the upland property will be indefinitely maintained to prevent erosion.

4. There will be no boat mooring in all slips immediately adjacent to the silo with the osprey nest.
5. The boat slips and docks will be engineered to avoid impacting or touching the half-submerged silo near the proposed "I" dock, taking into account the pool drawdown and other potential wave action. No construction materials will be placed in contact with the silo.

Preferred Alternative

TVA's preferred alternative is to permit the construction and operation of the marina expansion.

List of TVA Preparers

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Agencies and Others Consulted

United States Army Corps of Engineers, Regulatory Branch, P. O. Box 1070, Nashville, Tennessee 37202

Tennessee Wildlife Resources Agency, 464 Industrial Road, Crossville, Tennessee 38555

References

Tennessee Valley Authority. 2000. Savannah Harbour at Southwest Point, proposed marina, commercial recreation license, and 26a permit, draft environmental assessment.

Attachments

1. Joint TVA/USACE Application and Plans
2. TWRA March 3, 2000, Letter
3. Environmental Decision Record RLR 99411, Blues Springs Marina, TVA, Lenoir City, July 2002
4. August 28, 2002, Public Notice